AMENDMENTS TO THE SPECIFICATION

Page 1, between lines 1-2, insert the following heading:

BACKGROUND OF THE INVENTION

Page 2, at line 7, insert the following heading:

SUMMARY OF THE INVENTION

Page 5, at line 12, insert the following heading:

BRIEF DESCRIPTION OF THE DRAWINGS

Page 5, line 22, replace the paragraph with the following amended paragraph:

~~Figure 3 shows~~ Figures 3(a), 3(b) and 3(c) show various shapes adopted by a component part of the actuator;

Page 6, at line 20, insert the following heading:

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Pages 6-7, replace the paragraph bridging the pages starting at line 21, with the following amended paragraph:

Figures 1a and 1b show a phased array antenna system in accordance with the invention, which is capable of full duplex operation. In Figure 1(a), a signal-processing unit 10 generates a normally sinusoidal signal of a given frequency which is amplified to a suitable level in a power amplifier 11, split as mentioned earlier in

a 1:n splitter/combiner 12 into a n sub-signals 13, these sub-signals 13 then being fed to respective phase-shifters (Φ_1, Φ_2, Φ_n) 14 and ~~thence~~ then to radiating elements 15.

Page 7, please replace the paragraph starting at line 4, with the following amended paragraph:

In receive mode, the configuration is similar, except that individual low-noise amplifiers (LNA) 16 are preferably provided for each sub-signal received by the receiving elements 15 appearing at the output of the phase-shifters (Φ_1, Φ_2, Φ_n) 14, rather than a single common amplifier at the combiner output 17 connected to the signal-precessing unit 10. The apparatus 12 which operated in transmit mode as a splitter now operates in receive mode as a 1:n combiner.

Page 11, please replace the last paragraph starting at line 17, with the following amended paragraph:

In producing a steerable phased array, it is necessary for phase shifts of different values to be applied to the subsignal radiation being transmitted by the individual radiating elements in order that a beam may be steered. At most, a relative phase shift of one wavelength is required between antennas in the array. This means that, for transmitted radiation having a wavelength of 10 mm, a maximum relative wavelength shift of 10 mm is required.

Page 12, please replace the first paragraph starting at line 1, with the following amended paragraph:

The actuator arrangement 20 can induce a phase shift in transmitted radiation in a number of ways. In a first embodiment, illustrated in Figure 4, the actuator has a reflector 34 attached both to the piston 26 and to the cavity-separator extension piece 36 which extends axially of the reflector 34 and comprises a separating section 42 proper and an aperture section 44 disposed between the separating section 42 and the reflector 34. A pair of waveguide sections 38, 40 having parallel longitudinal axes are divided one from the other by, firstly, a fixed separator member 46 and, secondly, the cavity-separator separating section 42. One waveguide section 40 is provided with a radiating element 48 at its distal end and the other waveguide section 38 has a radiating aperture 50 at its distal end. The proximal ends of both waveguide sections are attached in common to the wall 28 of the actuator arrangement 20. Also shown in Figure 4 are the stator 22, the bearing member 24, and the slot 30 as described above for Figure 2.

Pages 13-14, please replace the paragraph bridging the pages starting at line 22 at page 13, with the following amended paragraph:

A variation of this embodiment is illustrated in Figures 7-11. In this variant realisation the mode of operation is exactly the same, but the construction is different. Instead of the movable dielectric slab 76 being coupled to the piston by means of a push rod 60 (Figures 5 and 6), it is directly attached to the piston through connecting arms 70. The connecting arms 70 pass through slots 71 in the waveguide 72 and fixed dielectric slabs 74 and are attached to the movable slab 76 at an

intermediate point thereof along its length. Thus, in this realisation the wall 28 of the actuator surrounds part of the waveguide 72 rather than being at one end of it, as in the Figure 5/6 realisation. As in the first realisation, though, the waveguide is secured to the actuator stator. Also shown is the launcher 62 received in an opening in a side wall.